Scientific Areas of Integrated Review Groups (IRGs)

For a listing of the Scientific Review Officer and membership roster for each study section, click on the study section roster under the study section name within an IRG listed below or go to the study section index (study sections listed alphabetically) and click on the specified roster next to the name of the study section.

Infectious Diseases and Microbiology IRG [IDM]

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- Bacterial Pathogenesis Study Section [BACP]
- Clinical Research and Field Studies of Infectious Diseases Study Section [CRFS]
- Drug Discovery and Mechanisms of Antimicrobial Resistance Study Section [DDR]
- Host Interactions with Bacterial Pathogens Study Section [HIBP]
- Pathogenic Eukaryotes Study Section [PTHE]
- Vector Biology Study Section [VB]
- Virology A & B Study Sections [VIRA & VIRB]
- Topics in Bacterial Pathogenesis Special Emphasis Panel [ZRG1 IDM-A 90]
- Small Business: Non-HIV Anti-Infective Therapeutics Special Emphasis Panel [IDM-Q 10]
- Small Business: Non-HIV Infectious Agent Detection/Diagnostics, Food Safety, Sterilization/Disinfection and Bioremediation Special Emphasis Panel [ZRG1 IDM-M (12)]
- Infectious Diseases and Microbiology Fellowship Study Section [F13]

Bacterial Pathogenesis Study Section [BACP]

[BACP Membership Roster] [BACP Meeting Rosters]

The Bacterial Pathogenesis [BACP] Study Section reviews R01 applications concerned with bacterial pathogens or the pathogen side of the host-pathogen relationship. Specific areas covered by BACP:

- Genetic, biochemical and structural characterization of the regulation and determinants of virulence and pathogenicity, including: capsules, toxins, and supramolecular structures
- Role of bacterial behavior and developmental processes in the host pathogen interaction, including: biofilms, chemotaxis, sporulation, and stress responses
- Mechanisms of persistence and transmission
- Ecology of bacterial pathogens including the composition of the indigenous microbiota and its role in health and disease
- Animal models of infection

Study sections with most closely related areas of similar science listed in rank order are:

Host Interactions with Bacterial Pathogens [HIBP]
Prokaryotic Cell and Molecular Biology [PCMB]
Oral, Dental and Craniofacial Sciences [ODCS]
Drug Discovery and Mechanisms of Antimicrobial Resistance [DDR]
Clinical Research and Field Studies of Infectious Diseases [CRFS]

TOP

Clinical Research and Field Studies of Infectious Diseases Study Section [CRFS]

[CRFS Membership Roster] [CRFS Meeting Rosters]

The Clinical Research and Field Studies of Infectious Diseases [CRFS] Study Section reviews applications that address population-based studies on the emergence, spread, control, and prevention of infectious diseases (including potential agents of bioterrorism) that affect humans. Specific areas covered by CRFS:

- Design and execution of investigator-initiated clinical studies for testing agents or strategies for preventing or treating infectious diseases
- Identification of factors involved in the pathogenesis, emergence and spread of infectious diseases.
- Diagnostics for the detection, identification, and surveillance of infectious diseases
- Molecular epidemiology of infectious diseases, including genetic characterization of both the pathogen and the host
- Studies that address the potential infectious etiology of human disease

Study sections with most closely related areas of similar science listed in rank order are:

Infectious Diseases, Reproductive Health, Asthma and Pulmonary Conditions [IRAP]
Bacterial Pathogenesis [BACP]
Pathogenic Eukaryotes [PTHE]
Host Interactions with Bacterial Pathogens [HIBP]
Vector Biology [VB]

TOP

Drug Discovery and Mechanisms of Antimicrobial Resistance Study Section [DDR]

[DDR Membership Roster] [DDR Meeting Rosters]

The Drug Discovery and Mechanisms of Antimicrobial Resistance [DDR] Study Section reviews applications that are concerned with the identification of novel antimicrobial, antifungal, and antiparasitic agents for the prevention and treatment of infectious diseases and the study of the evolution, mechanisms, and transmission of resistance. Specific areas covered by DDR:

- Drug discovery: drug target identification, characterization and validation; novel screening methods and assay development; molecular and medicinal chemical characterization of inhibitors; structure-guided drug design; preclinical studies using animal models
- Antimicrobial resistance: mechanisms and regulation of antimicrobial resistance; emergence, dissemination, and maintenance of resistance; strategies for the prevention of resistance; molecular characterization of resistant pathogens
- Development of procedures and/or instruments for the detection of antimicrobial resistant organisms, diagnosis, and treatments of infectious diseases
- Viral gene delivery, expression vectors, and phage therapy

Study sections with most closely related areas of similar science listed in rank order are:

Synthetic and Biological Chemistry A [SBCA]
Synthetic and Biological Chemistry B [SBCB]
Bacterial Pathogenesis [BACP]
Pathogenic Eukaryotes [PTHE]
Virology A & B Study Sections [VIRA & VIRB]
Drug Discovery and Molecular Pharmacology [DMP]

TOP

Host Interactions with Bacterial Pathogens Study Section [HIBP]

[HIBP Membership Roster] [HIBP Meeting Rosters]

The Host Interactions with Bacterial Pathogens [HIBP] Study Section reviews R01 applications involving studies that focus on bacterial factors that alter/affect host cells, or the host aspect of the host pathogen interaction. Specific areas covered by HIBP:

- Molecular basis for bacteria-host interactions including: in vivo survival and growth, intracellular replication dissemination, intercellular spread
- Immune response of the host to bacteria, characterization of the role of immunomodulators and effector molecules in pathogenicity, manipulation and evasion of innate and adaptive immune responses
- Interplay between bacteria and host cell components and processes, subversion and manipulation of normal host cell processes
- Mechanisms of asymptomatic colonization and the balance between infection and disease, and commensalism and pathogenicity
- Animal models of infection and disease, including host genetic determinants of susceptibility and resistance and surrogate hosts

Study sections with most closely related areas of similar science listed in rank order are:

Bacterial Pathogenesis [BACP]
Immunity and Host Defense [IHD]
Innate Immunity and Inflammation [III]
Oral, Dental and Craniofacial Sciences [ODCS]
AIDS-associated Opportunistic Infections and Cancer [AOIC]

TOP

Pathogenic Eukaryotes Study Section [PTHE]

[PTHE Membership Roster] [PTHE Meeting Rosters]

The Pathogenic Eukaryotes [PTHE] Study Section reviews applications involving protozoal, helminthic, fungal pathogens in humans and animal models. Specific areas covered by PTHE:

- Mechanisms of pathogenesis including: pathogen-host cell receptor interactions, signaling pathways in both host cell and pathogen, molecular mechanisms of virulence, manipulation of host cell biological pathways, and factors associated with asymptomatic infection and/or commensalisms
- Primary host defenses including: genetic basis of host resistance and susceptibility to infection and disease, induction and regulation of innate and acquired immunity, evasion of host immune response
- Biochemical processes of the pathogen including: metabolism, enzymology, physiology, and replication
- Identification and preclinical validation of potential chemotherapeutic targets and diagnostic strategies
- Pathogen cell biology including: novel organelles, secretory processes, and mechanisms of motility
- Pathogen differentiation, morphogenesis, and developmental processes required for the infectious cycle including transmission and persistence
- Genetic processes including: gene structure, regulation of gene expression, molecular evolution, genetic diversity, and improved genetic methodology
- Functional genomics, comparative genomics, proteomics, and other broad-based technologies for studying genomes
- Improved models of infectious cycles and diseases

Study sections with most closely related areas of similar science listed in rank order are:

Drug Discovery and Mechanisms of Antimicrobial Resistance [DDR]
Innate Immunity And Inflammation [III]
Immunity and Host Defense [IHD]
Vector Biology [VB]
AIDS-associated Opportunistic Infections and Cancer [AOIC]

TOP

Vector Biology Study Section [VB]

[VB Membership Roster] [VB Meeting Rosters]

The Vector Biology [VB] Study Section reviews applications on all aspects of arthropod and molluscan intermediate hosts of parasitic (e.g., nematode, helminth, or protozoa), viral, and bacterial pathogens, including model systems, where the intent is to yield information relevant to human diseases. Specific areas covered by VB:

- Basic biology, biochemistry, physiology, immunology, and ecology with relevance to vector-borne human pathogens
- Genetics and population genetics of vectors
- Genomics, including comparative and functional genomics, and proteomics
- Improvements of genetic and immunological technologies and their application in areas such as reducing vector capacity (including transgenic, selected gene silencing and knockout) and blocking parasite transmission
- Host immune responses to vectors, including pharmacological aspects of arthropod salivary and other secretory products
- Vector/pathogen/host interactions
    - Vector competence, including biochemical and genetic processes in pathogen/vector interactions
    - Pathogen impact on host fitness
    - Laboratory-based pathogen development and transmission
    - Vector immune responses to pathogens and surrogate vector systems
    - Molecular basis of transmission interference including identification of molecular and cellular targets
- Development, laboratory evaluation, and field-based testing of approaches to control vectors and disease transmission
- Arthropod symbionts and their use in introducing genes that encode anti-microbial products
- Development of methods for maintaining arthropods in the laboratory

Study sections with most closely related areas of similar science listed in rank order are:

Pathogenic Eukaryotes [PTHE]
Clinical Research and Field Studies of Infectious Diseases [CRFS]
Infectious Diseases, Reproductive Health, Asthma and Pulmonary Conditions [IRAP]

TOP

Virology A & B Study Sections [VIRA & VIRB]

[VIRA Membership Roster] [VIRA Meeting Rosters]

[VIRB Membership Roster] [VIRB Meeting Rosters]

The Virology A and B [VIRA and VIRB] Study Sections both review applications addressing fundamental aspects of non-HIV and non-bacteriophage viral genetics, infection and replication; cellular and host responses to viral infections; and mechanisms of disease pathogenesis in plants, animals, and humans. In general, applications with a focus on biophysics aspects of virology or structural biology will be assigned to VIRA and those addressing viral immunity will be assigned to VIRB. Specific areas covered by VIRA and VIRB:

- Cellular and molecular biology of viral replication: attachment and entry; gene expression and regulation; viral genome replication; viral assembly and maturation; egress
- Virus-host cell interactions: effects on signal transduction; host gene expression; cellular physiology and metabolism; production of interferons, cytokines and chemokines; cytopathology; apoptosis
- Host responses to virus infection: identification of determinants of susceptibility or resistance; mechanisms of viral clearance; establishment of latency and persistence; animal models of host response
- Viral determinants of disease: virulence and attenuation; viral tropism; spread within the host; transmission; mechanisms of immune evasion; animal models of pathogenesis; viral variation and evolution; transformation and oncogenesis; effects of viral co-infection
- Viral etiology of chronic disease: identification and detection of viruses associated with chronic disease; validation of etiology; animal models of virus-induced chronic disease
- Identification of new molecular targets relevant to viral pathogenesis: genomics and proteomics; new approaches to identify cellular changes relevant to pathogenic mechanisms

Study sections with most closely related areas of similar science listed in rank order are:

Immunity and Host Defense [IHD]
Drug Discovery and Mechanisms of Antimicrobial Resistance [DDR]
AIDS-associated Opportunistic Infections and Cancer [AOIC]
Hepatobiliary Pathophysiology [HBPP]
Clinical Neuroimmunology and Brain Tumors Study Section [CNBT]

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Topics in Bacterial Pathogenesis Special Emphasis Panel [ZRG1 IDM-A 90]

[ZRG1 IDM-A 90 Meeting Rosters]

The Topics in Bacterial Pathogenesis Special Emphasis Panel [ZRG1 IDM-A 90] reviews non R01 application mechanisms that would otherwise be reviewed by either the Bacterial Pathogenesis (BACP) or Host Interactions with Bacterial Pathogens (HIBP) Study Sections. Accordingly, it reviews R21, R03, and R15 applications involving bacterial infections and host pathogen interactions. Specific areas covered by Topics in Bacterial Pathogenesis:

- Bacteria-host interactions including adherence, invasion, multiplication, dissemination, and host immune responses
- Genetic, biochemical and physiological characterization of bacterial survival, growth, and pathogenesis
- Evasion of the innate and adaptive immune response
- Asymptomatic colonization and the balance between infection and disease, commensalisms, and pathogenicity
- Animal models of infection and disease
- Role of indigenous microbiota in health and disease
- Pathogen-related bacterial behavior and development including biofilms, chemotaxis, sporulation, and stress responses

- Ecology of bacterial pathogens
- Role of extrachromosomal elements in pathogenesis
- Exploration of small molecules, immunomodulators and drugs as modulators and regulators of virulence
- Role of bacterial agents in noninfectious diseases

Study sections with most closely related areas of similar science listed in rank order are:

Immunity and Host Defense [IHD]
Prokaryotic Cell and Molecular Biology [PCMB]
Oral, Dental and Craniofacial Sciences [ODCS]
AIDS-associated Opportunistic Infections and Cancer [AOIC]
Drug Discovery and Mechanisms of Antimicrobial Resistance [DDR]

TOP

Small Business: Non-HIV Anti-Infective Therapeutics Special Emphasis Panel [IDM-Q 10]

[ZRG1 IDM-Q 10 Meeting Rosters]

The Non-HIV Anti-Infective Therapeutics Special Emphasis Panel [ZRG1 IDM-Q 10] reviews Small Business Innovation Research [SBIR] and Small Business Technology Transfer Research [STTR] grant applications that focus on the development of therapeutic agents to combat bacterial, viral, fungal, parasitic, prion infections and disease vectors. Specific areas covered by ZRG1 IDM-Q 10

- Development and/or testing of novel anti-infective agents or of therapeutic process to fight infective agents using culture systems or animal models.
- Development of traps, biocides or pesticides active against infectious disease vectors.
- Development of processes to optimize industrial production of non-HIV anti-infective agents.

Study sections with most closely related areas of similar science listed in rank order are:

Small Business: Non-HISV Infectious Agent Detection/Diagnostics, Food Safety, Sterilization/Disinfection and Bioremediation Special Emphasis Panel (IDM IRG)
Drug Discovery and Development (BCMB IRG)
Delivery Systems and Nanotechnology (BST IRG)
Immunology Small Business Activities Special Emphasis Panel (IMM IRG)
AIDS Biological Sciences (AARR IRG)

TOP

Small Business: Non-HIV Infectious Agent Detection/Diagnostics, Food Safety, Sterilization/Disinfection and Bioremediation Special Emphasis Panel [ZRG1 IDM-M (12)]

[ZRG1 IDM-M (12) Roster]

The Non-HIV Infectious Agent Detection/Diagnostics, Food Safety, Sterilization/Disinfection and Bioremediation Special Emphasis Panel [ZRG1 IDM-M12] considers Small Business Innovation Research [SBIR] and Small Business Technology Transfer Research [STTR] grant applications that deal with detection and diagnostics of bacteria, non-HIV viruses, fungi, parasites and prions. Grant applications focused on non-HIV infectious agents and toxins that are contaminating food are also considered; emphasis may include technologies to protect food and water from infectious contamination, as well as sterilization and bioremediation technologies. Specific areas covered by ZRG1 IDM-M 12:

- Innovations in methods or technologies for the detection or quantitation of bacteria, non-HIV viruses, eukaryotic pathogens, and prions
- Study of bacterial biofilms as related to human disease; development of agents or methods to combat biofilms in vivo and on medical devices
- Detection and Inactivation of pathogens and toxins in food or drinking water
- Advances in sterilization, decontamination or disinfection technologies
- Development of novel applications for bioremediation

Study sections with most closely related areas of similar science listed in rank order are:

Small Business: Non-HIV Infectious Agent Detection/Diagnostics, Food Safety, Sterilization/Disinfection and Bioremediation Special Emphasis Panel (IDM IRG)
Bioanalytical Chemistry, Chemistry and Biophysics Special Emphasis Panel (BCMB IRG)
Genes, Genomes and Genetics Special Emphasis Panel (GGG IRG)
AIDS Biological Sciences Special Emphasis Panel (AARR IRG)
Immunology Small Business Activities Special Emphasis Panel (IMM IRG)

TOP

Infectious Diseases and Microbiology Fellowship Study Section [F13]

[F13 Roster]

The F13 Special Emphasis Panel reviews fellowship applications involving virology and viral pathogenesis, bacteriology and bacterial pathogenesis, fungal pathogenesis, parasitology and parasitic diseases, the innate and adaptive host responses to these microbes and viruses, and the development of anti-infective agents to treat and prevent infectious disease. Specific areas covered by F13:

- Genetics, biochemistry, structure, physiology and behavior of bacteria, archaea, and their phages
- Mechanisms of bacterial commensalism, infection, and disease
- Bacterial factors that alter/affect host cells, or the host aspect of the host pathogen interaction
- Protozoal, helminthic, and fungal pathogens in humans, and animal models
- Viral structure, genetics, infection and replication; cellular and host responses to viral and prion infections; and mechanisms of disease pathogenesis in plants, animals, and humans
- Studies on the emergence, spread, control, and prevention of infectious diseases that affect humans
- The identification of novel antimicrobial agents, for the prevention and treatment of infectious diseases and the study of the evolution, mechanisms, and transmission of resistance
- All aspects of arthropod and molluscan intermediate hosts of parasitic, viral, and bacterial pathogens, including model systems, where the intent is to yield information relevant to human diseases

Study sections with most closely related areas of similar science listed in rank order are:

Immunology Fellowship Study Section [F07]
Genomics, Genetics, DNA Replication, and Gene Expression Fellowship Study Section [F08]
Cell Biology and Development Fellowship Study Section [F05]
Physiology and Pathobiology of Organ Systems Fellowship Special Emphasis Panel [F10]
Biophysical and Biochemical Sciences Fellowship Special Emphasis Panel [F04B]

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